

## ABSTRACT OF THE DISCLOSURE

The invention relates to a process for producing a surface layer with embedded inter-metallic phases, which is distinguished by the fact that a layer comprising a metal and a ceramic is applied to a substrate element, that a reaction takes place between the metal and the ceramic of the layer as a result of energy being introduced during the application of the layer or as a result of a subsequent introduction of energy, and as a result the surface layer is produced, with inter-metallic phases being formed.